# Four T's Rotating About an Axis (side view)—Moment of Inertia [86]

Below are four identical figure **T**'s, which are constructed from two rods of equal lengths and masses. For each figure, a different axis of rotation is indicated by the small circle with the dot inside, which indicates an axis that is perpendicular to the plane of the **T**'s. The axis of rotation is located either at the center or one end of a rod for each figure.
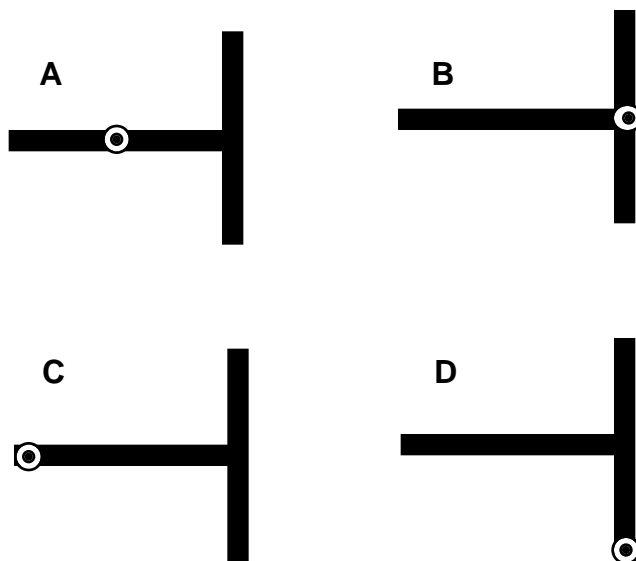
Rank these **T** figures according to their moments of inertia about the indicated axes, from largest to smallest. Ignore the width of each rod but not the length.

Largest   1 _____   2 _____   3 _____   4 _____   Smallest

Or, all these **T** systems have the same moment of inertia._____

Please carefully explain your reasoning.

How sure were you of your ranking? (circle one)
Basically Guessed   Sure   Very Sure
1   2   3   4   5   6   7   8   9   10